



## COVER SHEET

---

**This is the author version of article published as:**

Hedley, Peter W. and Smith, Dianne J. and Fermer, David J. (2007) Designing risk into the design studio. In *Proceedings At Risk Conference*, Wellington, New Zealand.

**Copyright 2007 The Authors**

**Accessed from** <http://eprints.qut.edu.au>

## **Designing Risk into the Design Studio**

**Peter Hedley, Dr Dianne Smith, David Fermer**

**Queensland University of Technology**

**Brisbane, Australia.**

### **Abstract**

In 2006, course structures were standardized across the Faculty of Built Environment and Engineering. As a consequence, a number of changes were required, including the time available to teach interior design being reduced from six to four hours per week. We were driven to seek an alternative to the traditional 'studio based' learning model even if it involved risk. Using an intensive experience-based learning process, a new Learning and Teaching Model combined information and ideas with *planned experiences*. Action research is integral to the Model.

Outcomes include highly engaged students, group ownership of content and teaching amongst the staff, and a transparency of course content that offers all parties common ground from which to discuss changes and improvements. The Model facilitates student-directed learning. The first year design units outlined are a useful vehicle to identify and discuss the risks involved in embracing change within the university context. The aim of this paper is to identify risks and to propose a process to manage risk embedded in innovations. The Model also offers a successful alternative to the traditional project-based studio format, and could be adopted to any of the design disciplines.

### **Introduction**

How do contemporary academics respond to critical changes such as restructuring in universities? The options include: to resist such changes, to modify our known practices the best we can, or to rethink our positioning and what it is we are truly trying to achieve. All alternatives involve risk—professionally and personally.

This paper will discuss the introduction of a new teaching strategy for Interior Design university students and will outline the risks. The Interior Design Learning and Teaching Model (the Model) used in this paper reveals the risks confronting the academic, and also,

offers a successful alternative to the traditional project based studio format that could be adopted in any of the design disciplines. A process to manage change that will assist other academics to drive innovations in their programs is proposed.

In response the University and Faculty restructure, the Model sought to explicitly address the need for change. The Interior Design staff chose to see change as an opportunity.

Our learning and teaching strategies were remodelled to address two key issues which are becoming more significant for us as academics each year in respect to student engagement and learning. Firstly, contemporary Australian universities have reduced resources. This has impacted on funding at a unit level, the number of staff, and available teaching aids,. For example, over the last few years, studio staff student ratios have increased from 1:12 to 1:17 and hours of contact reduced from seven in year one Interior Design to four, while student intake has been rising from approximately fifty students to the high eighties in 2006 (and well over a hundred in 2007). Secondly, the differences among contemporary students with regard to age, work commitment, learning styles, and attitudes are much greater than in the past. The old and tested ways of delivering and engaging with a discipline, and other substantive areas of knowledge, are being stretched to the point where they are in danger of being ineffective, and in some cases, irrelevant.

It was essential to re-evaluate and redesign our approach within the Interior Design undergraduate program, rather than simply adapting and refining our existing strategies. The approach to curricula development was action learning where theory is discovered in a first hand manner while engaging with relevant activities. As Gibbs states, 'learner activity is a key factor in encouraging a deep approach' to learning (Wilson and Fowler 2005:p.90). Although students entered a pre-designed unit; that is, one which was carefully structured so the objectives, content, and activities were fully integrated, their feedback was sought continually throughout the year. This also formed the basis of an action research project.

This paper will briefly outline the aim of redesigning the curriculum and the resultant Model. This will be followed by a discussion of potential risks embedded in this strategy to cope with change. Suggestions for how to address these risks are outlined. Although not prescriptive, the strategy is described to assist others to respond to change.

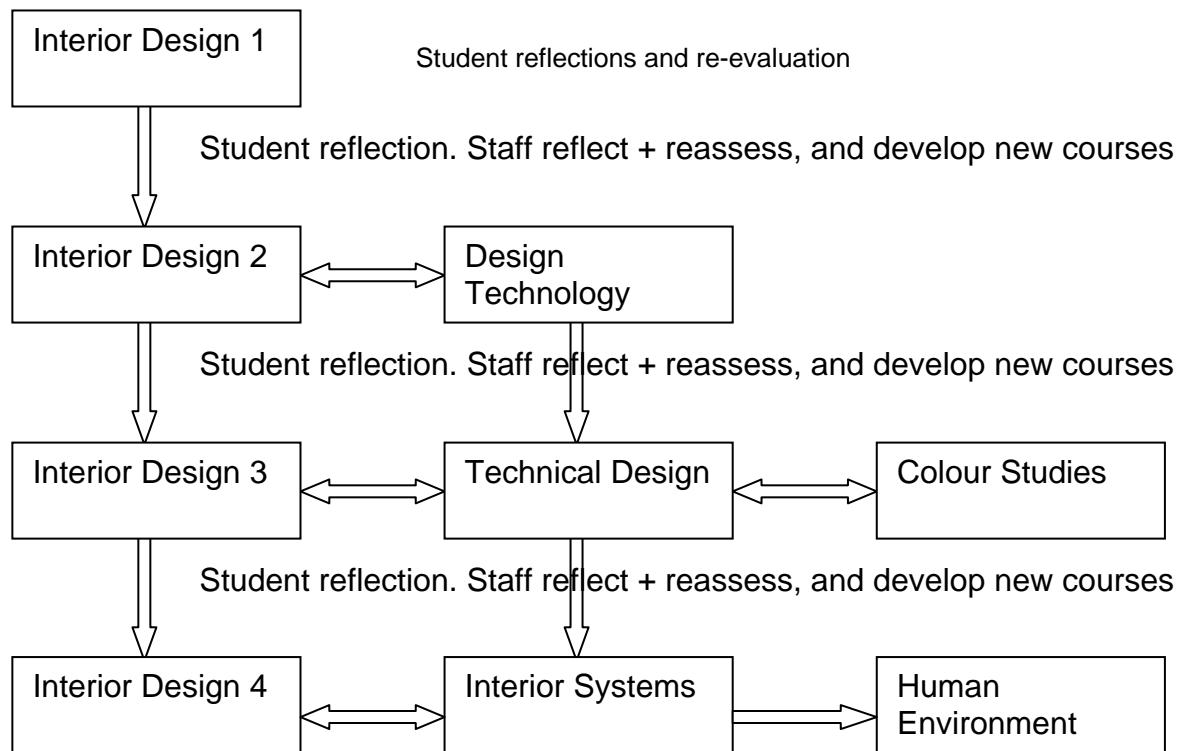


Diagram 1:0

Course development indicating points to review and reflect to minimize risk.

## 1.0 Aims: To Improve Student Learning and Staff Teaching

The challenge, and the risk, was to best engage with students, while engaging the students more productively in their learning. Through discussions with full-time and sessional academic staff, we brainstormed how to reduce our face to face teaching from six hours a week to four hours a week as directed without losing our passion for teaching and without the students losing their passion for learning.

A new strategy was obviously needed. Our concerns were: Will this work? How can we get this to work? What if the students cannot adapt to a different approach? Will they be able to apply the new approach to project work in a self directed manner? Modern students' everyday environments are largely fast-paced, multi-tasked and largely electronic; for example, split screens on television, news bulletins, information programs, infomercials, text messaging, and so on. As Henry Jenkins states: 'A teenager, doing homework, may juggle four or five windows, scanning the web, listening to and downloading MP3 files, chatting with friends, word-processing a paper, and responding to e-mail, shifting rapidly

between tasks' (Jenkins 2005:p.3). We questioned and tested different scenarios. The breakthrough came with a model that would mimic the students' fast-paced environment. This model became the basis for our new teaching approach, and complemented the students' everyday experiences.

## **2.0 The Model**

No lectures were given. The weekly studio was divided into four sessions, or teaching areas; each being a core aspect of designing. The content was delivered via the initial three as interactive tutorial sessions; each focussing on a particular aspect of one content theme per week. The academic staff rotated through each of the three tutorial groups, facilitating the specific exercise related to the weekly theme. This approach enabled the student, in a very focussed way, to engage more deeply in this core material.

As the Model has been described in detail in the paper (Smith et al. 2007), a brief overview is presented here. The three interactive strands were Environment, Process, and Communication. Theory was put into practice during the first three strands; through 50 minute exercises, which engaged students with key content material from three distinct and different viewpoints, and allowed them to learn by integrating their own personal methods. Each strand focused on a particular aspect of designing to assist the student to engage deeply. These three aspects are:

*Environment Strand:* an introduction to the importance of the environment (natural then built) to design. The ability to identify, critique, describe, and represent these was the focus.

*Process Strand:* an introduction and exploration of the techniques, issues and modes of thinking, commonly used when designing. Relevant theory was introduced to facilitate the exercises. The focus was on the process, not on the completed work.

*Communication Strand:* an introduction to a variety of techniques of visual communication in the context of design and the process of critical design thinking.

The final session was the Consolidation session during which the information gained from the interactive strands is integrated. Its aim is to foster a deep understanding of the weekly topic area, to integrate the interactive strands, and to clarify anything from the previous sessions, projects being undertaken, and the like.

A Guidebook which contains the theory and the weekly tutorial activities was prepared for each unit. This Guidebook provided the conceptual framework and operational structure for the students and staff. In preparation for the weekly studio sessions, the students needed to engage with the theory in a self directed and pro-active manner. Because the Guidebook presented the relevant content for the weekly strands within a broader theoretical description, students could potentially contextualise their weekly exercise. The student and staff engaged proactively with the material in a relevant and productive way. The Guidebook enhanced student learning and functioned as a reference tool; its format also supported the structure of the new strands. It contains the theoretical material, a weekly breakdown of activities, their projects, a bibliography, and a glossary of terms. It contextualised theory with practice.

Further, students could revisit past concepts in new situations, forward plan to develop the design projects by applying and developing key concepts, and integrate substantive knowledge to the new situations presented. The learning occurs through focused engagement with material, which in turn is seen as a resource to be critically selected, reviewed, and interrogated through the activities. The design of the accompanying Guidebook is therefore critical to encourage visually-orientated design students to access it in a meaningful way.

The project became a logical outcome of the five to six weeks' exercises and captured the student's integrated understandings. Also, it gave students an immediate opportunity to apply the knowledge gained through the studio exercises. The amount of tutor to student tutorial time was also reduced significantly, although an increase in the standard of the final projects was evident.

Successful outcomes from the Model included:

- building confidence in the majority of the students, enabling them to readily embrace the activities and to experiment and participate (as demonstrated by their willingness to a) readily commence activities, b) discuss outcomes, c) actively seek and contribute pertinent aspects within a few weeks of commencing the unit and d) produce tangible outcomes identified in the weekly tutorial worksheets in class);
- exposing students to their own process and its outcomes, thereby normalising interaction, generating ideas, and exploration;

- exposing students to others' work, enabling them to peer-teach and to learn with the potential result being an increased understanding and better outcomes;
- enabling students to also develop better group skills and improved interaction as many exercises were done in pairs, teams, or individually at tables where others were also creating or exploring issues;
- an unforeseen outcome from their learning experiences via these weekly exercises was a removal of the traditional students' focus on end results (marks) rather than process; and,
- the often seen habit of hiding away to produce a scheme on hand-in day, in the traditional model, was not evident here.

### **3.0 Academic and Teaching Risks**

All available Interior Design staff were involved in the Model's development over the previous twelve months. Acceptance of the Model was a collective decision, however, every staff member brought their own understandings and experiences of design, education, teaching and learning relationships, and curriculum design to the studio.

Hereby lies the risk. Many of these personal constructs may be implicit, and therefore, not needing to be expressed or dealt with consciously until confronted by a new situation. The change to the Interior Design course provides such a situation. Therefore, a number of specific issues will now be described through a narrative outlining the evolution of the first year design units. In association, the generic issues pertaining to risk will be discussed in relation to aspects identified in the education literature. These generic issues underpin the conception and role of what it is to be an academic. These identified aspects will potentially assist in the development of new units, and more broadly, inform strategies to deal with change in university program and to assist the management of risk.

#### **Stage 1: Initial Risks Identified**

Discussions among staff regarding operationalising the new system involved the following issues:

- Would full time academic staff be willing to commit to writing a Guidebook for each new semester?

- Would the tutors embrace the new system, and be willing to teach the same topic three times each week?
- Would each tutor be willing to commit to sharing the management, and the understanding of what was to happen on a week by week basis?
- Should the tutors become facilitators, and not teachers?

*Academic freedom and commitment:* The balance between an academic's autonomy and the requirements of a strong and discipline-based structure is raised through the above questions. Freedom can be viewed as free from intrusion and/or the ability to engage (Akerlind and Kayrooz 2006). Tight ~~(1988)~~ defines academic freedom as;

‘the freedom of the individuals to study, teach, research, and publish without being subject, or causing undue interference....an acceptance by academics of the need to encourage openness and flexibility in academic work, and of their accountability to each other and to society in general’ (Akerlind and Kayrooz 2006:p.328).

The risk for the academic, in this case, is that the explicit structure requires a commitment to comply with the fundamental principles and to contribute to the development of associated resources. This may be interpreted by the academic as an imposition and that other aspects may need to be reprioritized or their value reassessed as a result.

Therefore, a sense of belonging to the discipline and the unit is important at the onset. The staff teaching in the two first year design units discussed here, achieved this end through constant reflection and exchange. It is also highlighted in Viskovic's literature survey of teaching and educational development, academics are appointed as content experts and often teach in isolation (Viskovic 2006). The Model provides opportunities for informal learning, modelling of teaching, and mentorship. The balance between freedom and personal development is assisted by a sense of belonging and ability to contribute openly in the new design units in our course.

We also identified that there would be a necessary fragmentation of teaching inherent in the way the new curriculum was conducted due to the three strands and the pace of the group work. A different relationship with students is required. The removal of the traditional one to one project tutorial raised questions about 'getting to know' students in the new self directed, activity based studio situation. Tutors are challenged to avoid helping students in the normal 'one on one' studio situation.



*Lecturer-Student Relationships:* A closely directed studio allows the lecturer to develop control and often power based relationships with the students. Associated with the design studio is the ability to spend time with each student as the 'expert' working with the student toward resolving a scheme. There is a risk in this relationship of co-dependency where the student depends on the lecturer for knowledge while the lecturer enjoys contributing directly to the work and the student's learning.

Research into adult learning, indicates that adults if provided with meaningful learning situations are more engaged. '...Adult learners are known to require meaningful learning experiences' and 'vital involvement in one's world as opposed to the spurious flirtations of youth' (Erikson in Tweedell 2000, p.3). In addition, as Oliver and Morrison state, 'It is important that students are socialised from the beginning of their tertiary studies into active, involved modes of learning which will maximise both understanding of material and an acceptance or personal responsibility for one's own learning' and 'empower students to take control of their own learning' (Halit 1993:57).

Contemporary students need to deal with multiple sources of information rapidly and discriminately. This ability was fostered by staff acting as facilitators of the structure and associated processes, while empowering the student to source and navigate the information in the companionship of their peers. The three theories of teaching that underpin academic practice proposed by Ramsden—that is, transmitting, organising student activity, and making learning possible—promotes the latter as achieving best results (Booth and Anderberg 2005:376) Staff members, therefore, need to reposition themselves in the contemporary studio context and to reconsider how they assess their value and their contribution. In the design units, ongoing staff reflections and clear articulation of unit goals assists this to occur.

The focus on student action learning led to a further potential problem. How could the tutors keep the students 'engaged' in the process? How would different staff and student personalities cope? The tutors would need to be part of the team, and not be so much the 'centre of attention' as would normally be the case.

*Fostering Student Engagement:* Student engagement is an important goal for contemporary universities, as students now have complex lives which inform and impinge upon the learning environment. 'As our world evolves and student attention spans change,

educators must also adapt to meeting the changing needs of their students' (Ahlfedt et al. 2005:5). The aim of our course is to promote engagement so that students consolidate activities and knowledge actively and can then apply this knowledge to a project in a self directed manner. Interactive engagement methods are defined by Ahlfedt et al. as 'those designed to gain a conceptual understanding through heads-on (always) and hands-on (usually) activities that result in immediate feedback with peers and instructors' (p.6). Activities that promote engagement, and therefore influences learning, include 'active learning, involvement in enriching educational experiences, seeking guidance from staff and students' (Coates,2005:26).

By dividing content into two themes delivered via three strands, which represent key aspect of designing, directed intensity was ensured. McClenney (2004) identifies five benchmarks which 'encompass 38 "engagement items"' and 'that reflect many of the most important aspects of the student experience' in her article, Redefining Quality in Community Colleges: Focusing on Good Educational Practice. All five have seen to be addressed in the current Model. These are defined as: Active and Collaborative Learning; Student Effort.; Academic Challenge; Student-Faculty Interaction; and Support for Learners. The Model explained in this paper was designed to allow students to be actively involved in their education; to have opportunities to think about and apply what they are learning to different settings; to collaborate 'with others in solving problems or in mastering challenging content'; contribute significantly to their learning through effort; to adapt learning to variety of means to explore content; are challenged intellectually and creatively—all being aspects of the five benchmarks described by McClenney (—:19).

In contrast, student-academic contact has increased compared to the traditional studio mode, not through one-to-one contact, but instead, because students are actively present with their peers throughout the studio session in the company of the academics. Traditionally, in a studio one to one critique sessions are allotted to a student or project team with a staff member (an expert designer); and as resources are reduced and student numbers increase the time may be reduced to 10-15minutes with little additional time for the academic to roam and engage more freely with the class as a whole. Therefore, under the Model students are in the presence of academics and peer feedback through out the sessions rather than for a short personal critique. As a consequence, they are potentially more likely to '...learn effectively and to persist toward achieving their educational goals' (—:19). The smaller classes (groups) enabled through the strands, are also important in

fostering a sense of belonging and engagement. In addition, students have been more likely to attend the entire four hour studio.

## **Stage 2: Further Staff Concerns as the Units Unfolded**

After deciding the new program would work, we wrote the Guidebooks for semesters 1 and 2, 2006, with the aid of a Teaching and Learning Grant from the Faculty, which allowed us to employ a research assistant to commence gathering information. New Guidebooks will be written for each of the new units introduced until 2009. Thereafter, only updating will need to be done. By then, staff will be familiar with the Model, and only a brief examination and refinement of the material will be necessary before each studio.

Although having decided to proceed, the interior design academics involved in course development were initially uncertain about the new model; and members had to keep reassuring each other that it would work. Some responses were:

'Should we have more one-on-one tutoring before each project?'

'Let's see what happens in the first project, before going any further.'

'I can't see a positive result unless we have more personal contact with the students.'

'We should wait and see what happens.'

*Trust and dealing with ambiguity and uncertainty:* The above comments demonstrate the need for commitment and trust to avoid undermining the potential of new ideas and structures. Possibly the most important aspect that came to the fore, was the respect for each other's input, opinions, and professional experience. As a group, we needed to hold our resolve, to regard the new model as a challenge. This resolve resulted in its success. It is, therefore, important to consider trust (building trust and trusting others) in two situations; in relation to the academic team and in relation to the students as learners. Bartel (2005) discusses the work of Dewey, Kamii, and Bower to demonstrate how trust is integral to learning communities. For example, the teacher needs to believe (Bartel 2005:pp151-152):

- what the classroom represents and its vibrancy and enjoyment for learners can be maintained;
- that the aim of education is autonomy, independent learners with dispositions for lifelong learning;
- knowledge is co-constructed;

- the learning community is 'a place built on fairness, freedom of expression, and responsibility;
- is about connectedness and relationships; and
- where one values and sincerely appreciates diversity in many forms.

In the team developing the overall structure for Interior Design, and in particular, the design units discussed in this paper, these same characteristics were evident as we operated as a community of learners in our own right. However, it also flags the need to address at an organisational level, these same issues when new staff are employed, or others are new to the system or feel they are unable to take responsibility to understand the intricacies in a self-directed manner.

Another potential problem was time management. We needed to understand and accept that each member of the team had other commitments, which made it difficult to find the time needed to allow dynamic development within such a strong substantive and procedural structure. An essential part of the model was matching staff expertise, knowledge and interests across the strands, and ensuring that each week's content was understood and delivered in a cohesive, stimulating environment. In essence, we were challenged to bring individual flexibility into a set structure, and allow each tutor to bring their own individual thinking into each strand each week.

*Team work and collaboration:* These issues question the balance between an individual academic and their responsibilities to the team and to their own personal career development. This juncture provides opportunities for both the structure and the individual to be challenged, and therefore, both to be managed. Dall'Alba (2005) highlights that when the familiar is made unfamiliar, we can reflect on our practice and opportunities to transform the self arise (p.366); the transformation involving the integration of 'knowing, acting and being (p.367). She also notes how belonging to a community who is committed to student learning enables exposure to new ideas, confidence to discuss education, opportunities to interrogate and reflect upon teaching practice, access to colleagues as resources, and to 'transform ways of being university teachers' (p367).

In light of this observation, it is also important to recognise that differences in personal objectives and level of willingness to truly collaborate may arise. Barskey and Woods (2005) have identified a number of influences that determine if staff and students will confront points of conflict within universities. These are: the perceived length of a

relationship, cost-benefit analysis of action and outcomes, resignation to situation, expectation of natural resolution, withdrawal from conflict as a norm, lack of confidentiality, indecision, being quiet, and non-confronting personalities. Some degree of conflict is inevitable and depending on how it is handled will influence the team's success. In the design units the openness and unwillingness to be respectful while honest lead to its success.

In order to manage change and create a sense of belonging to a team, which is building a unit or course framework, it is necessary to foster an environment that promotes belonging, a place to express doubts and anxieties, and an ability to discuss ideas and reach agreed directions or at least an agreed willingness to openly 'go with the flow' to see what will happen through respect for the team and objectives.

#### **4:0 Risk Strategies Adopted in the New Roles**

In summary, the culture of design was expressed through a team action-learning process, where implicit understandings are made explicit. There is a need to deconstruct designing and the selected projects proactively to identify knowledge and skills required to assist students to develop as designers. The content is contextualised and activities outlines are included in the Guidebook; the strand tutorials make the Guidebook relevant and vice versa. The role of the final outcome, the project submission, is altered; that is, it is now an expression of what is learnt and the student's ability to integrate and apply this to a design task. Students were thereby encouraged to take full responsibility for their outcomes. In association, as stated above, the new structure demanded that the academic staff work as a team, rather than teaching as individuals.

Through discussing the risk involved, it became evident that a number of central characteristics were required for the successful development of the curriculum. These characteristics will underpin the development of subsequent units. In refining the design units and developing new ones, the following actions or strategies were, and will be, necessary:

- involve staff in the development of the structure, unit, or program;
- recognise their personal constructs may be implicit, will only be expressed or dealt with consciously in the new situation;

- commit to the fundamental principles and contribute to the associated resources in an open manner ;
- foster a sense of belonging to the discipline and the unit through constant reflection and exchange;
- provide opportunities for informal learning and modelling of teaching and mentorship in relation to educational theory acquisition and its integration;
- assist to maintain the balance between freedom and personal development through encouraging academics to contribute openly;
- reposition staff into a contemporary studio context by reconsidering how they assess their value and their contribution;
- explicitly place the staff in the role of facilitators of the structure and associated process to enable idea exchange;
- foster trust and respect for colleagues through discussion and reflection;
- foster trust and resolve to deal with ambiguity through discussion and reflection and a willingness to proactively learn as-you-go;
- match staff expertise, knowledge and interests across the strands;
- ensure that each week's content was understood by the relevant staff member (and the rest of the unit team) and delivered in a cohesive, stimulating environment; and
- enable individual flexibility into the set structure and strands each week.

And in regard to students:

- discuss and design ways to empower students to take control of their own learning as part of the curriculum design process;
- encourage students to source and navigate information and activities in the companionship of their peers;
- incorporate activities that promote engagement, and therefore, influences learning
- increase student-academic contact through student active involvement, and therefore, high level of attendance throughout the studio; and
- restructure large groups into smaller classes (groups) spatially to foster a sense of belonging and engagement.

As stated previously, in the future we also need to address (at an organisational and operational level) these same issues when:

- new staff are employed,

- others are new to the system, and/or
- a staff member feels he or she is unable to take responsibility to understand and embrace the intricacies in a self-directed manner.

## CONCLUSION

Is risk worth taking? All six staff and the vast majority of the eighty students involved in design would definitely say yes. Although a number of risks have clearly been identified in the paper, the strategies identified in Section 4.0 do suggest successful integration of the Model can occur through sensitive and reflective curriculum design.

However, it is important to remember that new courses or program structures, such as the units outlined in this paper, are examples of change, and therefore, need to be managed accordingly. As Dall'Alba (2005) has pointed out in regard to being a university teacher:

'While transformation of the self can be liberating and empowering, it is often fraught with uncertainty and some degree of anxiety. For example, when a transmission model of teaching is called into question during the course, some participants can be excited and troubled by new possibilities for their educational practice. A challenge in the course is to both facilitate and support transformation in ways of being university teachers. ...[Our] teaching reflects not only our knowing and what we do, but also who we are as teachers' (p.369) .

## Acknowledgements

To the other academic staff (Michael Molloy, Alithea Egea, Carolyn Jackson) and the students of DTB101 Interior Design 1 and DTB201 Interior Design 2, School of Design, QUT, Australia.

## REFERENCES

Ahlfedt S., Sudhir, M. and Sellnow, T. (2005) 'Measurement and analysis of student engagement in university classes where varying levels of PBL methods of instruction are in use'. *Higher Education Research and Development*, **24**(1), 5-20.

- Akerlind, G. S. and Kayrooz, C. (2006) 'Understanding academic freedom: The views of social scientists'. *HERDSA*, **22**(3), 327-344.
- Barskey A.E. and Woods, L. (2005) Conflict avoidance in a university context, *HERDSA*, **24**(3), 249-264.
- Bartel, V. (2005) Learning Communities: Beliefs embedded in content-based rituals, *Early Childhood Education Journal*, **33** (30), 151-154.
- Booth, S. and Anderberg, E. (2005) Academic development for knowledge capabilities: learning, reflecting, and developing. *HERDSA*, **24**(4), 373-386
- Coates, H. (2005) The value of student engagement for higher education quality assurance. *Quality in Higher Education*. **11** (3), 25-36.
- Dall'Alba, G. (2005) Improving teaching: Enhancing ways of being university teachers'. *HERDSA*, **24** (4), 361-372.
- Halit , K. (1993) 'Empowering student to learn: The process in large classes', in Weeks P. and Scott D. (eds) *Exploring tertiary learning*. **2**. Brisbane:QUT Publications, pp52-60.
- Jenkins, H. (2005) 'Welcome to Convergence Culture', Online journal receiver #12 ([www.vodafone.com/flash/receiver/12/index.html](http://www.vodafone.com/flash/receiver/12/index.html))
- McClenney, K. (2004) Redefining Quality in Community Colleges: Focusing on Good Educational Practice. *Change*, **36**(6), 16-21.
- Reason P. (1988) *Human Inquiry in Action*. Sage Publications, London, UK.
- Smith D., Hedley P., Molloy M. (2007) Design Learning: A Reflective Model, unpublished.
- Tweedell, C.B. (2000) *A theory of adult learning and implications for practice*. Midwest Educational Research Association Annual Meeting, Chicago, Illinois.



Viskovic, A. (2006) Becoming a tertiary teacher: Learning in communities of practice. *HERDSA*, **25** (4), 323-339.

Wilson, K. and Fowler, J. (2005) Assessing the impact of learning environments on students' approaches to learning: comparing conventional and action learning designs. *Assessment and Evaluation in Higher Education*, **30**(1), pp87-101.